

CLAIMS

1. Emulsion composed of a fatty external phase and of a gelled aqueous phase, the said aqueous phase representing 60 to 98% by weight of the composition, characterized in that:

- the aqueous phase comprises a polymer of polyelectrolyte type; and
- the fatty phase comprises one or more oils and an emulsifying system with a lipophilic nature comprising one or more emulsifying surfactants.

2. Emulsion according to Claim 1, which is an antisun emulsion, the oily phase and/or the aqueous phase of which comprise(s) one or more sunscreens.

3. Antisun emulsion according to Claim 2, in which the emulsifying system comprises at least one emulsifying surfactant chosen from alkylpolyglycosides, compositions formed of alkylpolyglycoside(s) and of fatty alcohol(s), optionally alkoxyated polyol esters, such as optionally alkoxyated polyol polyhydroxystearates, and polyethylene glycol/alkyl glycol copolymers.

4. Antisun emulsion according to Claim 2, in which the emulsifying system comprises an optionally alkoxyated polyglycerol ester, an optionally alkoxyated polyglycol polyhydroxystearate, or a polyethylene glycol/alkyl glycol copolymer, in combination with an alkylpolyglycoside or a composition formed of alkylpolyglycoside(s) and of fatty alcohol(s).

5. Antisun emulsion according to one of Claims 2 to 4, in which the sunscreen(s) represent approximately 2% to approximately 40%, preferably approximately 5% to approximately 20%, by weight of the emulsion.

6. Antisun emulsion according to one of Claims 2 to 5, in which the oily phase additionally comprises one or more inorganic fillers.

7. Process for the preparation of an emulsion of water-in-oil type as defined in Claim 1 or 2, comprising the following stages:

a) a fatty phase comprising one or more oils and an emulsifying system with a lipophilic nature comprising one or more emulsifying surfactants and optionally one or more sunscreens is prepared;

b) a gelled aqueous phase comprising a polymer of polyelectrolyte type and optionally one or more sunscreens is prepared, independently of the fatty phase;

c) the fatty phase is added to the aqueous phase.

8. Process according to Claim 7, in which the emulsifying system comprises at least one emulsifying surfactant chosen from alkylpolyglycosides, compositions formed of alkylpolyglycoside(s) and of fatty alcohol(s), optionally alkoxyated polyol esters, such as optionally alkoxyated polyol polyhydroxystearates, and polyethylene glycol/alkyl glycol copolymers.

9. Process according to either one of Claims 7 and 8, in which the emulsifying system comprises an optionally alkoxyated polyglycerol ester, an optionally alkoxyated polyglycol polyhydroxystearate, or a polyethylene glycol/alkyl glycol copolymer, in combination with an alkylpolyglycoside or a composition formed of alkylpolyglycoside(s) and of fatty alcohol(s).

10. Process according to one of Claims 7 to 9, in which the said polymer of polyelectrolyte type is chosen from the group consisting of copolymers or of homopolymers, which may or may not be crosslinked or

branched, based on monomers having a partially or completely salified strong acid or weak acid functional group or a cationic functional group, the said monomers preferably being chosen from styrenesulphonic acid or 2-sulphoethyl methacrylate, styrenephosphonic acid which is partially or completely salified, or 2-methyl-[(1-oxo-2-propenyl)amino]-1-propanesulphonic acid (AMPS) which is partially or completely salified in the form of the sodium salt, of the ammonium salt or of the monoethanolamine salt.

11. Process according to any one of Claims 7 to 10, in which the polymer of polyelectrolyte type is chosen from copolymers of acrylic acid and of 2-methyl-[(1-oxo-2-propenyl)amino]-1-propanesulphonic acid (AMPS), copolymers of acrylamide and of 2-methyl-[(1-oxo-2-propenyl)amino]-1-propanesulphonic acid, copolymers of 2-methyl-[(1-oxo-2-propenyl)amino]-1-propanesulphonic acid and of 2-hydroxyethyl acrylate, 2-methyl-[(1-oxo-2-propenyl)amino]-1-propanesulphonic acid homopolymer, acrylic acid homopolymer, copolymers of acryloyltrimethylammonium chloride and of acrylamide, copolymers of AMPS and of vinylpyrrolidone, copolymers of acrylic acid and of alkyl acrylates, the carbonaceous chain of which comprises between ten and thirty carbon atoms, or copolymers of AMPS and of alkyl acrylates, the carbonaceous chain of which comprises between ten and thirty carbon atoms.

12. Process according to any one of Claims 7 to 11, in which the aqueous phase comprises at least one emulsifying surfactant.

13. Process according to one of Claims 7 to 12, in which the gelled aqueous phase is obtained by dissolving the said polymer of polyelectrolyte type and exhibits a viscosity of between 0.5 and 300 Pa.s, preferably between 1.0 and 150 Pa.s and more particularly between 5 and 100 Pa.s.

14. Process according to any one of Claims 7 to 13, in which the fatty phase is added to the aqueous phase at a temperature of less than 55°C and preferably of between 15 and 35°C.

15. Process according to any one of Claims 7 to 14, in which the two phases are mixed with a stirring rate of less than 1000 revolutions per minute and preferably of between 80 and 800 revolutions per minute.

16. Pharmaceutical, veterinary or detergent preparation comprising an emulsion according to Claim 1 or an emulsion prepared by the process according to any one of Claims 7 to 15.

17. Cosmetic preparation comprising an emulsion according to any one of Claims 1 to 6.